

IN THE CLAIMS

1. (Previously Presented) Metal detector comprising transmitting coils, receiving coils and an electronic processing circuit (30) adapted to detect variations in signals received by the receiving coils in relation to a reference value, characterised in that it also includes a test module comprising selection means (40) for detecting a test request, and control means (50), used when a test request by the selection means (40) is detected, for comparing the signals from the receiving coils, at the time of subsequent passing of a standard reference object through the detector, with a predetermined response, wherein the control means (50) comprise a display module (52), a recording module (54), a comparison module (56), an output module (58) and a central processing unit (59) which controls the assembly, and the display module (52) is adapted to give signals indicating the height at which the standard reference object must be moved.
2. (Original) Detector according to Claim 1 characterised in that the standard reference object is a metal sphere.
3. (Previously Presented) Detector according to Claim 1, characterised in that the test module is adapted to carry out control operations for each of the detector's channels.
4. (Previously Presented) Detector according to Claim 1, characterised in that the selection means (40) are selected in the group comprising: a protected access button, a card reader, a detector of a code entered on a keyboard.
5. (Previously Presented) Detector according to Claim 1, characterised in that the selection means (40) are adapted to load and use a control programme specific to the request detected.
6. (Previously Presented) Detector according to Claim 1, characterised in that the selection means (40) are adapted to load and use a control programme specific to the request detected, selected from several available control programmes.

7. (Previously Presented) Detector according to Claim 1, characterised in that the selection means (40) are adapted to load and use a control programme specific to the request detected, selected from 3 available control programmes: 1) an automatic test and recalibration procedure for the detection parameters if necessary, 2) a full test procedure and 3) a simple and quick test procedure.

8. (Cancelled)

9. (Previously Presented) Detector according to Claim 7 characterised in that the display module (52) is adapted to send signals guiding the operator in the sequencing of the test programme.

10. (Previously Presented) Detector according to Claim 7, characterised in that the display module (52) is adapted to give signals to proceed with passing the standard reference object through, interrupting this passing, and repeating the procedure at a different height.

11. (Cancelled)

12. (Previously Presented) Detector according to Claim 7, characterised in that the output means (58) provide an output signal representative of the test result.

13. (Previously Presented) Detector according to Claim 7, characterised in that the output means (58) are adapted to modify the detection parameters if the signals detected from the receiving coils do not fall within a given predetermined response tolerance range in the context of a calibration request.

14. (Original) Detector according to Claim 13 characterised in that the test module is adapted to carry out calibration operations for each of the detector's channels.

15. (Previously Presented) Test procedure for metal detectors characterised in that it includes, after a stage (60) of sending a test request, stages comprising passing a known standard reference object through the detector (72, 82, 92), comparing (76, 86, 96) the signals from the receiving coils at the time of this passing, with a predetermined response, and sending signals (72, 82, 92) indicating the height at which the standard reference object must be moved.

16. (Original) Procedure according to Claim 15 characterised in that the standard reference object is a metal sphere.

17. (Previously Presented) Procedure according to Claim 15, characterised in that the test request sending stage (60) comprises the selection from several available programmes.

18. (Previously Presented) Procedure according to Claim 15, characterised in that the test request sending stage (60) comprises the selection from three available programmes: 1) an automatic test and recalibration procedure for the detection parameters if necessary, 2) a full test procedure and 3) a simple and quick test procedure.

19. (Previously Presented) Procedure according to Claim 15, characterised in that it comprises sending signals (72,82, 92) guiding the operator in the sequencing of the test programme.

20. (Cancelled)

21. (Previously Presented) Procedure according to Claim 15, characterised in that it comprises a stage (792) modifying the detection parameters if the signals detected from the receiving coils do not fall within a given predetermined response tolerance range.

22. (Previously Presented) Procedure according to Claim 21, characterised in that the modification stage (792) includes modifying the amplification factor of the signals from the receiving coils.

23. (Previously Presented) Procedure according to Claim 15, characterised in that it includes a calibration procedure (70) comprising a single passing through of the reference object, at floor level.

24. (Previously Presented) Procedure according to Claim 15, characterised in that it includes a test procedure (80, 90) including carrying out several successive passes of the reference object, at different heights.

25. (Original) Procedure according to Claim 24, characterised in that a test procedure (80) comprises four successive passes of the reference object, at different heights.

26. (Previously Presented) Procedure according to Claim 24, characterised in that a test procedure (90) comprises two successive passes of the reference object, at different heights.

27. (Previously Presented) Procedure according to Claim 15, characterised in that the trajectory of the standard reference object is a rectilinear trajectory (T) and at a constant height for each respective pass.

28. (Previously Presented) Procedure according to Claim 15, characterised in that the trajectory of the standard reference object is effected halfway between two panels (20, 22) making up the detector.

29. (Previously Amended) Metal detector comprising transmitting coils, receiving coils and an electronic processing circuit (30) adapted to detect variations in signals received by the receiving coils in relation to a reference value, characterized in that it also includes a test module comprising selection means (40) for detecting a test request, and control means (50), used when a test request by the selection means (40) is detected, for comparing the signals from the receiving coils, at the time of subsequent passing of a standard reference object through the detector, with a predetermined response, wherein the control means (50) comprise a display module (52), a recording module (54), a comparison module (56), an output module (58) and a central processing unit (59) which controls the assembly, wherein the output module (58) is adapted to modify the detection parameters if the signals detected from the receiving coils do not fall within a given predetermined response tolerance range in the context of a calibration request.

30. (Previously Presented) Detector according to Claim 29 characterised in that the test module is adapted to carry out calibration operations for each of the detector's channels.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)